

Statistical relationships of the Ausburg Multidimensional Personality Instrument (AMPI) validity scales with those of the MMPI-2

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ABSTRACT - The Ausburg Multidimensional Personality Instrument (AMPI) was designed as a brief measure of domains similar to the Minnesota Multiphasic Personality Inventory-2 (MMPI-2), but without clinical implications. This study explored whether the AMPI's validity scales—Virtuousness (V), Unlikeliness (U), and Guardedness (G)—correspond to the MMPI-2 validity scales L, F, and K, respectively. A sample of 205 undergraduate students completed both instruments. Pearson correlations and linear regressions were used to evaluate relationships between scales. Results indicated significant correlations of V with L, U with F, and G with K. Regression analyses confirmed these associations while controlling for other scales. Findings suggest that the AMPI validity scales reasonably reflect the intended MMPI-2 constructs, supporting its potential as a brief research tool. Future research should replicate these findings with larger and more diverse samples.

Keywords:
Personality
assessment; MMPI-2;
validity scales;
measurement;
Ausburg
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Introduction

A measure was proposed, the Ausburg Multidimensional Personality Instrument (AMPI; Kelly, 2012a, 2012b), which was intended to provide brief scales assessing domains similar to those of the Minnesota Multiphasic Personality Inventory-2, (MMPI-2; Butcher, Dahlstrom, Graham, Tellegen, & Kaemmer, 1989) but briefer and without specific clinical implications. While the instrument has received some systematic investigation (e.g., Kelly, 2013, 2014; Kelly & Lutz, 2014), it has not been extensively validated. The purpose of this study was to explore the statistical relationship between the validity scales of the AMPI and those of the Minnesota Multiphasic Personality Inventory-2.

Initially, the AMPI was developed to serve as a pedagogical tool. It was intended to expose advanced undergraduate psychology students to the process of administering and interpreting a brief personality test with domains similar to those of the MMPI. The rationale for development and use of the AMPI largely stems from the need to provide an engaged instructional activity to teach undergraduate psychology students about multiband professional personality tests while accounting for the potential ethical pitfalls of allowing undergraduate students to use a clinically valid protocol.

Previous research has supported the validity of the AMPI clinical scales (Kelly & Lutz, 2014). However, no research has yet examined the validity of the AMPI validity scales. The AMPI Validity scales include: Virtuousness (V), Unlikeliness (U), and Guardedness (G), which were designed to reflect the MMPI Validity scales L (socially appropriate responses), F (responses to items that indicate either extreme distress or portrayal of oneself in a pathological light) and K (defensive test taking responses), respectively (Butcher et al., 1989; Kelly, 2012b).

Ensuring the efficacy of the AMPI validity scales, through their correlations with other established validity scales, is a key step to determine the pedagogical value of the AMPI. Given connections between their purported constructs, the following hypotheses were developed:

(H1) scores on the AMPI V scale will be significantly correlated with scores on the MMPI-2 L scale.

(H2) Scores on the AMPI U scale will be significantly correlated with scores on the MMPI-2 F scale.

(H3) Scores on the AMPI G scale will be significantly correlated with scores on the MMPI-2 K scale.

Method

Participants

Participants included 205 undergraduate volunteers from Texas A&M University - Kingsville. A total of 52 (25.4%) participants were male, 147 (71.7%) were female, and 6 (2.9%) participants did not report gender. The participant's mean age was 22.2 years ($SD = 4.2$). In terms of ethnicity, 160 (78.0%) self-identified as Latinx, 21 (10.2%) as White/Caucasian, 13 (6.3%) as African American, 4 (2.0%) as other, while 7 (3.5%) did not report ethnicity.

Procedure

All data was gathered after obtaining a signed copy of participant's informed consent. Participants completed a research packet containing a demographics questionnaire, the AMPI, and MMPI-2 validity items in groups settings before regular class meetings.

This study was approved by the Institutional Review Board of Texas A&M University – Kingsville. The study was conducted in accordance with the Declaration of Helsinki. All participants provided informed consent.

Measures

Ausburg Multidimensional Personality Instrument (AMPI). Participants completed the AMPI clinical (Kelly, 2012a) and validity (Kelly, 2012b) scales. Given the purpose of the study, only validity scale results are presented. The three AMPI Validity scales include Virtuousness (V), Unlikeliness (U), and Guardedness (G). These scales consist of a total of 12 items. Participants responded to each item on a 7-point Likert rating scale ranging from 1 (“strongly disagree”) to 7 (“strongly agree”). Higher summed scores indicate more of each construct. Internal consistency reliability for V, U, and G was reported as .67, .77, and .79, respectively (Kelly, 2012b). Validity of the measures has preliminary support (Kelly, 2012b).

Minnesota Multiphasic Personality Inventory Validity Scales (MMPI-2). Participants completed the traditional MMPI-2 (Butcher et al., 1989) validity scales known as L, F, and K. The L scale consisted of a total of 15 statements, the F scale consisted of 60 statements, and the K scale consisted of 30 statements. Participants responded as “true” or “false.” Higher summed scores indicate more of each construct. When used with university students Matz et al. (1992) retest stability coefficients for L, F, and K scores were found to be .64, .69, and .76, respectively over three weeks. Validity of the scales have been supported (Butcher et al., 1989).

Statistical Analyses

SPSS for Windows was used for statistical analyses. Pearson correlations were calculated between hypothetically similar measures: V and L, U and F, and G and K. To determine independent relationships between MMPI-2 validity scales and each AMPI validity scale, separate linear regressions were run using MMPI-2 validity as simultaneous predictors and AMPI validity scales as criterions.

Results

The AMPI V scale had a statistically significant correlation with the MMPI-2 L scale, $r = .35$, $p < .001$. The AMPI U scale was significantly correlated with the MMPI-2 F scale, $r = .53$, $p < .001$. The AMPI G scale was significantly correlated with the MMPI-2 K scale, $r = .46$, $p < .001$. Regression results revealed that when the other MMPI validity scales were controlled for, L most strongly predicted the AMPI V scale, F most strongly predicted the AMPI U scale, and K most strongly predicted the AMPI G scale. Regression analysis results are shown in Table 1. The regressions confirmed that each AMPI validity scale was best predicted by its intended MMPI-2 counterpart, even when shared variance among the MMPI-2 scales was controlled.

Table 1: Regression results predicting Ausburg
Multidimensional Personality Instrument validity scales

	β	t	p
Regression 1:			
Virtuousness			
L	.45	6.0	<.001
F	-.04	0.6	.54
K	-.22	0.3	.01
Model $R^2 = .16$, $F = 11.9$, $p < .001$			
Regression 2:			
Unlikeliness			
L	-.08	1.1	.26
F	.40	6.2	<.001
K	.26	3.5	.01
Model $R^2 = .34$, $F = 33.9$, $p < .001$			
Regression 3:			
Guardedness			
L	.05	0.7	.48
F	-.05	0.8	.44
K	.42	5.3	<.001
Model $R^2 = .22$, $F = 18.2$, $p < .001$			

Discussion

These findings support the construct and concurrent validity of the AMPI validity scales and align with established psychometric theory on response distortion (Paulhus, 1998; Rogers, 2008). The Virtuousness–L relationship, for instance, reflects a consistent factor of impression management, wherein respondents consciously attempt to present themselves in a favorable light (Paulhus, 1984). The correspondence between Unlikeliness and F is consistent with prior research showing that F-type scales effectively capture random, exaggerated, or deviant responding, particularly in nonclinical populations (Meyers et al., 2002). The parallel between Guardedness and K further suggests that the AMPI may capture adaptive forms of self-protection or defensiveness often observed in evaluative contexts (Nichols, 2011).

Taken together, the pattern of associations indicates that the AMPI validity scales effectively reflect the structural intentions of their MMPI-2 analogs, albeit in a more pedagogically accessible form. This suggests that the AMPI may serve as a useful instructional tool to teach principles of personality assessment, validity detection, and test interpretation without invoking clinical-level measures. As previous research suggests (Kelly, 2013; Kelly & Lutz, 2014), the AMPI's brevity, face-valid design, and relationships with similar constructs make it suitable for research purposes and classroom-based exercises that emphasize psychometric reasoning, data interpretation, and ethical considerations in test use.

Nevertheless, several limitations must be acknowledged. The sample was composed primarily of undergraduate students at a single institution, most of whom identified as Latinx. While this demographic concentration offers cultural insight into response tendencies in Latinx student populations (Ben-Porath & Tellegen, 2008), it limits generalizability to broader or clinical contexts. Replication with more heterogeneous samples, including community and clinical participants, will be important to establish broader validity evidence. In addition, although internal consistency reliabilities were reported from prior studies, future work should include coefficient alpha estimates from the present sample to confirm score reliability.

Future research could extend the current work by comparing AMPI validity scales with other response validity indicators such as the Balanced Inventory of Desirable Responding (Paulhus, 1998) or structured response distortion indices (Rogers, 2008). Moreover, the AMPI's potential to capture situationally induced response biases, such as those observed under evaluative versus anonymous testing conditions (Kelly, 2013), could be systematically investigated. Such findings would not only clarify the instrument's psychometric properties but also enhance its utility in applied teaching and training contexts.

In conclusion, the present study provides initial evidence supporting the psychometric alignment between the AMPI and MMPI-2 validity scales. While further validation is warranted, the results suggest that the AMPI's validity scales can function as effective, nonclinical analogs for educational and research purposes, promoting hands-on engagement with personality assessment methods in undergraduate settings.

Conflicts of Interest: The authors declare no conflicts of interest.

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